

Specification Amendments

Please replace the paragraph beginning on page 6, line 3, with the amended paragraph, as follows:

A sonic emitter array 10 is illustrated in Figure 2. It comprises a plate support member 11 having opposing first and second faces ~~12-13~~ and ~~13-12~~ separated by an intermediate plate body 14. The plate 11 is preferably a rigid material (metal, ceramic, polymer, etc), and may be either conductive or nonconductive, depending on the method of driving an emitter membrane 20 directly coupled to the first face ~~12~~13. The thickness of the plate will vary, depending on the acoustic coupling properties required for specific frequency ranges and particular applications. Generally, the plate thickness will be within the range of 1 millimeter (mm) to 20 mm. The selection of acoustical, electrical and physical properties will be discussed hereafter.

Please replace the paragraph beginning on page 6, line 11, with the amended paragraph, as follows:

The plate body includes a plurality of conduits configured as an array of acoustic horns 30. Each horn has a small throat opening 31 at the ~~second~~first face 13 and an intermediate horn section 32 which diverges to a broad mouth opening 33 at the second face 12. The degree of flair in the intermediate horn section, as well as the size of the respective small throat and broad mouth openings 31 and 33 may be configured in accordance with conventional design parameters. These parameters will be balanced and optimized, depending upon the degree of directionality desired, the bandwidth response selected and the gain and coupling efficiency intended. Detailed design considerations are therefore deemed unnecessary for enablement of the present disclosure. Representative dimensions illustrated in Figure 2 are a 10 mm diameter for the mouth 33, 2 mm diameter for the throat opening, and 10 mm for length or thickness of the plate.

Please replace the paragraph beginning on page 8, line 13, with the amended paragraph, as follows:

Both classes of emitters are positioned in direct contact with the first face 13 and extend across the small throat openings. This is somewhat counter to teachings of the prior art, which have required a displacement gap between the emitter and the small opening of the horn. The present inventors have discovered that by directly attaching the emitter at the first face 13 and in direct position at the throat of the horn develops a highly efficient ultrasonic emission source which couples surprisingly well with a surrounding air environment. Its operability as a parametric propagation source has been effectively demonstrated.